



THOMAS G. NEWMAN,
EDITOR.

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Mr. W. Z. Hutchinson has taken a car load of bees, honey, and implements to the Michigan State Fair. That speaks volumes for his enterprise, zeal, and enthusiasm, and puts to shame those who ought to have exhibited at the Illinois State Fair—but failed at the critical moment.

Mr. F. M. Johnson sends us a dollar for a Weekly that is "always on time," and "one that all bee-keepers should read, and then take heed—especially beginners." He gives no name to the paper, but, of course, we send him the AMERICAN BEE JOURNAL, knowing that it "fills the bill of particulars." He certainly is also on time, for his dollar pays for it until Jan. 1, 1888.

Round Trip Tickets to the Convention.—As Manager of the National Bee-Keepers' Union, we have made arrangements with the Indianapolis lines of railroad for round trip tickets from Chicago to Indianapolis and return to Chicago, good from Monday to Saturday, Oct. 11 to 16, 1886, for \$7.30. The fare one way is \$5.50, and this is one fare and one-third. To obtain these tickets, it will be necessary to get a certificate signed by Thomas G. Newman, stating that the bearer is entitled to the reduced fare. Now, do not wait until you come to Chicago to get this certificate, for we may have gone before you come. Send for the certificate at once; and it will be sent by return mail.

To Indianapolis there are three routes from Chicago—the Kankakee, the Pan Handle, and the Chicago & Eastern Illinois. On all of these the reduced rates for a round trip for \$7.30 can be had upon the presentation of a certificate signed by Thomas G. Newman. We wish it to be distinctly understood that we have not been able to secure rates for any other points, only a round trip from Chicago to Indianapolis and return to Chicago. Several have written to us to get them reduced rates on other routes, and from other points—and we should be glad to do so, but have not been able to do it. We make this announcement to save correspondence on the subject. The tickets are good from Monday to Saturday, Oct. 11 to 16, 1886.

Bee-Keepers at the Zoo.—A Philadelphia paper gives the following as a report of the meeting of the bee-keepers at the Zoological Gardens at Philadelphia, Pa.:

The members of the Philadelphia Bee-Keepers' Association held their third annual convention and picnic at the Zoological Garden. President Dr. Henry Townsend, of 1514 Vine street, presided, and John Shallcross acted as Secretary. Among the well-known members present were: H. N. Twining, Joseph M. Neagle, Prof. Brien, Arthur Todd, J. H. Lutgers, Thomas Davidson, and Miss Anna M. Crew, of Moorestown, N. J. English charts of all varieties of bees and their wonderful workings were hanging over all the walls of the building, while tables loaded with variegated species of fruits stood in the centre, a present from Mr. Neagle.

A large number of ladies and misses had everything prepared in the way of eatables, and hives of bees were placed promiscuously around the rooms. Dr. Townsend, at the opening of the session, said that although they had a choice between bees and elephants, he preferred to learn more about the bees. He read several papers on bees and consumers of honey, and regarding the prospects this year for honey, said:

"This has not been what could be called a first-class season, by reason of the dryness in the early part of the year, and the wet weather during white clover bloom time. Reports from nearly all parts of the United States indicate a general falling off in the quantity. In the vicinity of Philadelphia the crop was not only small, but not of very good quality, and not much has been done in the bee-line."

Arthur Todd, owner of the bees on exhibition at the "Zoo," furnished the gathering with a new and fine quality of honey ice-cream. Nearly all the afternoon was devoted to a discussion of bees. Head-keeper P. J. Byrne entertained the assemblage with several well-rendered solos. Thanks were tendered to Mr. Neagle and Superintendent Arthur Irwin Brown of the "Zoo." Mr. Todd and other members of the association expect to exhibit bees at the State Fair.

With honey ice-cream and instrumental and vocal music, as well as excellent speeches, that convention ought to be a success.

How to Put on a Postage Stamp.

We get many letters with the stamps entirely gone. The persons putting the stamps on the letters had licked all the mucilage off, and hence the stamps would not remain when they were put on the letters to start them. In rubbing together in the mail sacks they loosen and are lost. A correspondent in the Boston Traveller tells how to put on the stamps in the right way. He says:

A man can always learn something if he will only look about him. I was at the Post Office Department the other day and I noticed an employee busy affixing stamps to envelopes. Every time he moistened the right hand corner of the envelope and then placed the stamp upon it. I asked him if there was any advantage in wetting the envelope instead of the stamp, and he said: "You notice that I moisten the envelope first; well, I do that because it is the right way. There is a right and a wrong to everything, and consequently there is a right and wrong way to put on postage stamps. It is impossible to moisten a stamp with the tongue unless a small proportion of the gum adheres to it. Now this gum is by no means injurious, but then the Department does not advertise it as a health food; so the only way left is the right way, and that is to moisten the envelope first." After listening to this brief statement I felt as though I had emerged from the deep shade of ignorance to the glorious sunlight of knowledge.

We Regret to learn that the wife of Mr. T. M. Cobb, of Grand Rapids, Mich., died on the 1st inst. The BEE JOURNAL condoles with Bro. Cobb in his bereavement.

A Laughable Item was in the London Daily News of Aug. 23, 1886. It is in a report of a law court, where a man asked for redress from trespassing bees. Here is the item:

CURIOUS APPLICATION.—In the course of the afternoon a man came before Mr. Chance and stated that he was in the employ of Mr. Jousiffe, wine merchant and cordial manufacturer, of South-Place, Kennington. For some days applicant was almost unable to attend to his work, owing to swarms of bees coming to the place, and he wanted to know what he could do to prevent it.—Mr. Chance: Where do the bees come from?—Applicant: From a place not far off where hives are kept.—Mr. Chance: Why do they come to where you are?—Sergeant Underwood: The bees no doubt, your worship, are attracted by the cordials and spirits.—Mr. Chance: I suppose they prefer this kind of thing to flowers. (Laughter.)—Applicant: I don't know, but I do know I am often stung and unable to get any rest from the pain. I could not get on with my work to-day owing to the bees.—Mr. Chance: I am afraid I cannot assist you. The bees are not included in the list of animals to be muzzled or kept under control. (Laughter.) They can scarcely be described as ferocious. (Renewed laughter.)—Applicant: But they sting very sharply.—Mr. Chance: I am sorry for it, but I do not see how I can help you. There have been no regulations at present to keep bees under control. Perhaps you might trap them or kill them.—Applicant: I have killed numbers, but more seem to come.—Mr. Chance: Perhaps you could protect yourself by putting on a wire mask, and wearing gloves.—Applicant: I don't know what to do. I have had to go to a doctor in consequence of the stings.—The applicant thanked his worship and withdrew.

Wouldn't a man have a fly-time of it when trying to muzzle a few irascible bees! How lively they would make it for the muzzler! How numerous they would seem to him! and what an "object" they would make him appear in a few minutes! Justice Chance could find no law for muzzling them, and if he could, he wouldn't try it the second time.

Honey in Ventura Co., Calif.—A correspondent in the Ventura Free Press gives his opinion as follows on this subject:

As there have been conflicting reports published in reference to the yield of honey in Ventura county this season, I have obtained personal reports from thirty of the leading bee-keepers. These reports give the number of hives of bees on hand before swarming, also the amount of honey each bee-keeper produced; most all extracted honey. The average yield per hive was 150 pounds. I then obtained from the county assessor the number of hives assessed before swarming, which was 7871. Supposing there were 129 hives not given in, it would make in round numbers 8,000 hives, which, averaging 150 pounds each, would give to the country 1,200,000 pounds, or 600 tons of honey. The quality of honey in this county was never better than the present crop. Near the coast the quality is not so good, and the amount only half as much as that produced twenty miles or more back from the ocean, where it was warmer and less foggy.

Present Indications point to a large and enthusiastic meeting at Indianapolis. There have been several additions to the programme, and more still will be made, in the future.

No More Back Numbers can be supplied to new subscribers. Our stock is all exhausted. We give this notice because many are asking for back numbers from last January, and all will please take due notice.



AND

Replies by Prominent Apiarists.

[It is useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—ED.]

Disposing of Surplus of Bees.

Query, No. 307.—It is necessary for us to reduce the number of our colonies one-half. They have swarmed but once, and are consequently all very strong. Will it be any advantage to double up the bees of 2 colonies in one hive instead of killing half, provided we can do it without their fighting?—H. & S.

I think it would be best to unite at least the *young* bees.—C. C. MILLER.

Kill half the colonies if you cannot sell them. Do not unite very strong colonies.—W. Z. HUTCHINSON.

You do not say why you want to double them up. I should say let them alone.—H. D. CUTTING.

No. There is no advantage in doubling strong colonies.—G. M. DOOLITTLE.

Do not kill, but double up. Do this late in the evening and they will not fight. If any choice of queens, destroy the poorest and cage the others to be sure of their safety.—J. P. H. BROWN.

If your hives are without bottoms, for wintering out-doors, unite in the fall by setting one colony on the other with honey cloth or board between, with small openings, and then remove and let them altogether after two or three days, and leave them in the double hives all winter. If wintered inside, simply set one colony on another as you put them out in the spring. There are some decided advantages in this method.—H. R. BOARDMAN.

If my colonies were of average size, I would never unite other bees with them, no matter what had to be done with the surplus bees. If it becomes necessary to do so, it is as proper to kill bees as it is to kill any domestic animal for the benefit of man.—G. W. DEMAREE.

What do you wish to kill any bees for? If all are strong, why double up? Leave them as they are, as possibly a severe winter may follow and kill off as many colonies as is desired or desirable. I can see no advantage so far as safe wintering is concerned, in doubling strong colonies. It can be done, however, without any perceptible loss from fighting.—J. E. POND, JR.

My experience teaches me that it would not. Such, however, may not always be the case in all localities and in all seasons, though I think it is a rule.—JAMES HEDDON.

It is better to double up colonies than to kill a part where it is necessary to reduce the number. As very large colonies do not winter so well as average sized ones, the doubling up should be done as soon as the season for surplus is over, or not later than Sept. 1. Doubling up is easily done by making one of the colonies to be united, queenless for nine days. Then cut out queen-cells and unite by using a little peppermint water.—G. L. TINKER.

Age of Queens.

Query, No. 308.—1. Will an Italian queen live longer than a black one? 2. How long does a queen live and keep her colony well furnished with eggs?—C. K. S.

1. No, we think not. 2. Three or four years.—DADANT & SON.

1. No. 2. Usually about 3 years.—G. L. TINKER.

1. I think not. 2. From 2 to 4 years.—H. D. CUTTING.

1. I presume not. 2. I have had queens live and remain excellent for five years. This is rare, however.—A. J. COOK.

1. I think there is little difference as to length of life of the queens of the two races, if both have the same treatment. 2. From 3 to 5 years, with me.—G. M. DOOLITTLE.

1. Probably not. 2. It varies very much; may be 4 years, may be not a year. Some think it pays to supersede all queens over 2 years old.—C. C. MILLER.

1. I do not know that she will. 2. The average life of a queen is 3 years of good service. First and second years the most prolific; third year on the decline.—J. P. H. BROWN.

2. If she is not "horse whipped" by spreading the brood, or exhausts herself by keeping a large brood-nest filled with brood, she may last four years.—W. Z. HUTCHINSON.

1. I know not. There is no reason why she should, other things being equal. 2. Ordinarily a queen will prove prolific for 2½ to 3 years. I had, last season, a queen 5 years old that was as prolific as any I ever saw. About 3 seasons, however, is the average with myself.—J. E. POND, JR.

1. I have not noticed any difference in the longevity of the queens, but Italian workers are longer lived than Germans. 2. Good ones live and keep up to the laying standard 3 to 4 years, and when they fail they fail all at once, and are superseded.—JAMES HEDDON.

1. I do not think the matter has ever been tested on a scale of sufficient magnitude to decide it with any certainty. So far as I am able to judge there is little if any difference in the

longevity of the two races. 2. It depends upon the development of the queen. In other words, it depends upon her constitutional strength as to how long she will be useful. She ought ordinarily to do two years' good service. In exceptional cases she may do good work for 3 or 4 years.—G. W. DEMAREE.

Building Combs on Wired Frames.

Query, No. 309.—When only a strip of foundation 4 inches wide is used on a wired Langstroth frame, will the bees build the rest of the comb so that the wires are in the middle of the comb?—H. M.

That we have never tried, nor would we like to try it.—DADANT & SON.

I do not know, but I think not always.—C. C. MILLER.

If the wires are drawn taut, I think they will.—W. Z. HUTCHINSON.

They will build it near enough for all practical purposes.—H. D. CUTTING.

I should not use wire when using only a strip of foundation.—G. M. DOOLITTLE.

Not always. I prefer my frames to have tri-angular comb guides, and the foundation securely fastened to this guide; then I have no use for wires, which are at best a nuisance to the bees.—J. P. H. BROWN.

I always use full sheets with wire. I should suppose the wire would trouble some with only starters.—A. J. COOK.

The experiment has not worked well with me. I avoid wiring frames in all cases as much as possible. I much prefer combs well built in the frames without wire.—G. W. DEMAREE.

No; but why use wires in brood-frames? They are a needless and useless expense, besides being a great annoyance to the bees.—G. L. TINKER.

My experience is more limited than I meant that it should be at this time, but in the few cases tried, the bees have followed the wires perfectly every time.—JAMES HEDDON.

They do with me. I have as an experiment given a starter only ½-inch wide on wired frames, and found the comb was built directly on the wires. The frames, however, should be wired plumb centre, and hung exactly plumb in the hive.—J. E. POND, JR.

Colored Posters for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

Frank Cheshire's new book on Bees and Bee-Keeping, can be had at this office.—Vol. I, bound in cloth, \$2.50, postpaid.

CORRESPONDENCE

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark \odot indicates that the apiarist is located near the center of the State named; δ north of the center; η south; \oplus east; \ominus west; and this \nearrow northeast; \nwarrow northwest; \searrow southeast; and \swarrow southwest of the center of the State mentioned.

For the American Bee Journal.

Markings of Hybrid Bees.

G. M. DOOLITTLE.

In answer to Query, No. 297, I find that five out of the ten answering that query, say that hybrid colonies will have individual bees in them, which will show one and two yellow bands; while two others speak of two yellow bands only on such individual specimens. Now in all candor I wish to ask those seven persons if either of them ever saw an individual bee that had any yellow on either one of the first three horny scales or segments of the abdomen, beginning at the thorax, which did not have yellow on all three of them. If so, they have seen something which I never saw.

To be sure, I have seen bees which appeared to have but one or two yellow bands, from a casual glance, but close inspection always showed that if there was any yellow on the bee, that bee had yellow on all three of these first bands. The best of Italians appear at times to have only two bands, while such bees spoken of by Mr. Pond, which show four yellow bands, have times of showing but the three bands. This is wholly owing to the conditions of their surroundings causing them to appear thus, while the same bees under other circumstances appear very differently. The only way to tell perfectly just how a bee is marked, is to cause it to become filled with honey and then place it upon a window, when all the markings on the segments of the abdomen will show forth clearly. Will not these persons take some of their one and two banded bees and examine them as here given, and then tell us what they find?

Mr. G. W. Demaree once wrote that the meanest hybrids he could find, showed (when examined as above) yellow in splashes, etc., etc., on all three of the bands, if the yellow was shown on any, or words to that effect, which set me to looking into the matter more closely than I had before, when I soon found that he was correct. Why we talk of one and two-banded bees is because we do not stop to scrutinize closely enough regarding such bees as appear to have but one and two yellow bands.

In June and July, when brood-rearing is going on rapidly so that all bees over three days old are filled with chyme, or with honey for wax secretion, and the field bees are coming in loaded with honey, a colony of bees show off to their best advantage, as all except those under three days old look much the same as the filled bee does upon the window. At such a time almost any one would call a $\frac{3}{4}$ -blood Italian colony good enough, and speak of it as containing all three-banded bees, as did Mr. Heddon of his hybrid colony in answering the query mentioned above.

Now wait until October or November, when the bees are getting ready for their winter's nap, and look at the same colony and they will be pronounced one and two banded bees by a person who is not a close observer. The reason for this is that the segments of the bee's abdomen are made so that one shuts over the other, telescope fashion, and when not in active employment the abdomen is so contracted or drawn up by one ring sliding into the other that all except the widest yellow band is covered up, so that the bee looks as if it possessed but one yellow band.

To show more perfectly what I mean, we will take one of Mr. Pond's four-banded bees, and a close examination will show the first horny segment next to the thorax to be composed of yellow and black, the yellow largely predominating. The next segment is the one having the most yellow on, and is the one *yellow band* which is always seen at all times, if any yellow is observed upon the bee. On good specimens the black on this segment is very narrow, often being hardly discernible, only as a mere line around the upper part of the abdomen. The next segment is (except on excellent specimens) about one-half yellow and one-half black; while the fourth segment will appear about as the second, only that the black takes the place of the yellow, so that only a small line of yellow appears on the front of the segment. In extra specimens I have seen this fourth segment have as much yellow upon it as is usually upon the third, while the fifth segment showed the yellow line around it. This is the way one of Mr. Pond's bees will look when shown at its best. Now let another bee sting it and in less than one minute the segments will so slide into one another, as the bee contracts in death from being stung, that all would pronounce the bee a two-banded bee, while if it showed but the three yellow bands while at its best it would so contract that but one yellow band would show enough to attract attention.

Bees, when first hatched, or when they go into their quiescent state preparatory for their winter's nap, appear very much the same as does a bee which has been stung to death, so that a good colony of Italians appear almost like hybrids when looked at late in the fall.

My way of examining a colony of bees is to carefully look the bees over till the poorest bee possible is found.

This bee is caught and killed. I now take the head of it between the thumb and forefinger of my left hand, when the point of the little blade of my jack-knife is inserted just under the horny scale of the fifth segment of the abdomen. I then put my thumb-nail down on this segment and draw out the abdomen, carrying it over and around the finger holding the bee's head. If when thus tested the bee shows three clear, well-cut yellow bands, the colony is pronounced good enough for any use I may wish to put it to. If, on the contrary, the yellow is in splashes, or mingled with the black, or spots of black appear in the yellow, the colony can hardly be called as fine a thoroughbred as can be obtained.

Borodino, \odot N. Y.

For the American Bee Journal.

The Iowa State Fair.

EUGENE SECOR.

The honey and apiarian supply exhibit at the State Fair was a very creditable show. Every one who took part in it has reason to feel proud of the display. It was by far the best I have ever seen in the State. The exhibit at the New Orleans Exposition did not compare with it. The great bulk of it was comb honey. The display of extracted honey was not very large, but was put up in very attractive and tasty packages. Glass pails, and the Muth square bottles were the principal ones used.

The comb honey was shown mostly in pound packages, either in glassed shipping cases or tastily arranged on graduated shelves. Nearly all the modern hives were on exhibition. Not only the Shuck Invertible and the Hill Telescope hive, but a sort of cottage hive which looked something like a smoke house with lean-tos on two sides. Mr. Poppleton and myself stopped to examine it and to listen to the laudations of the person in charge. It was arranged for side and top storing, and had as many apartments as a Saratoga trunk. Its chief value, however, according to our informant, seemed to be that its capacity was equal to two common hives, and therefore it would yield twice as much honey. "You see," said the person in charge, "the way we manage is this: The first season we do not attempt to get any honey, but let it fill up with bees, and the next season we have a colony twice as strong as a common one, and get twice as much honey!" Farm and county rights for sale. We did not invest. No practical bee-keeper would give 10 cents a cart load for such new-fangled patent contraptions.

Most of the modern implements were on exhibition, and also the different races of bees in observatory hives. The crowds of interested questioners who huddled around the exhibit, showed that these object lessons were being studied.

The Iowa State Bee-Keepers' Association met during the Fair. The

attendance was quite good, and the interest encouraging. It may be said to the credit of the association, that through its influence, that is, through the wise management of Messrs. Poppleton and Clute in arranging the premium list, the fine show was due. The premiums were liberal. That fact probably accounts for the interest taken by bee-keepers in the Fair, and was probably the cause of the large display.

The State association is as yet in its infancy, but the benefit to be derived from it is already apparent. The advantages which such an organization affords by way of acquaintance with co-laborers, the unity of action and purpose which it inspires, cannot but be beneficial.

Forest City, 3 Iowa.

For the American Bee Journal.

Summer Management of Bees.

W. H. STEWART.

About the middle of June our strongest colonies are ready for the supers. Those that are ready, and have their work well done in the brood-chamber, will begin to lay out on the alighting-board in small clusters during the heat of the day, and will have plenty of patch-work of new white comb at the top-bars, and attached to the cover board.

White clover is now in full bloom, and I add a second-story like the one that contains the brood-combs. I bring up from the brood-chamber a frame of hatching brood, fill its place with an empty comb or a frame of foundation, hang this frame of brood in the centre of the super, hang an empty comb each side of the brood, and if I have no more empty combs I fill the balance of the super with full frames of foundation. If frames only partly filled with foundation are hung in the supers, the bees will fill the balance of the frame with drone comb. If I have plenty of empty combs I prefer to fill the supers with them instead of foundation. Brush down all the bees from this frame of brood that is in the super, to make sure that the queen is not left to deposit eggs above. The same cover-board that was on the brood-chamber covers the super.

Thus prepared and provided with extra room, the bees will go immediately to work and fill the two frames next to the brood in the super; and if left to have their own way they will soon have all full, if the honey-flow is good. But if the frame of brood is allowed to remain there the queen is apt to deposit eggs in the lower part of the adjoining combs, and thus fill the super one-third full of brood. Thus it is better to remove this brood after two or three days, and give it to some weaker colony in exchange for an empty comb; but if no other colony has room for it, then move it over next to the wall of the super, and it will not be likely to induce the queen above while the brood

is hatched out, and then the comb will be filled with honey.

Now, we have come to the time that calls into action all the brain and muscle that the apiarist possesses. The work in the supers must be closely watched, and as soon as the combs are sufficiently advanced, the honey must be extracted, or the super must be raised up and a third hive (or second super) filled with empty combs or foundation must be placed between the brood-chamber and this super No. 1 that is now nearly full. It will not do to let the bees lay idle for a moment at this time, for we have now only a few days in which we are to obtain our harvest, and if everything is not most closely attended to at this crisis, then all that we have done, or may do through the remainder of the year, will avail us nothing.

If one would wish to obtain the best quality of honey, then it is better to thus "tier-up" the supers, and allow the honey to remain with the bees until it is thoroughly cured. But if it is desired to get the greatest possible amount of honey, and to evaporate it mechanically, then it is better to extract it as soon as it is capped half way down the comb. If the second super is not given, and the combs are left after they are capped half way for the bees to complete the capping over the entire combs, it will be found that the last part of this work will advance very slowly.

It is time now that we begin to expect natural swarming, and it has been calculated that after we have thus prepared our bees for storing surplus, it is better to keep the entire force of the colony at work together, than to allow them to divide their strength by casting a swarm. This fact has often prompted the question, "How can we prevent natural swarming?" Many ways and means have been devised and given, and yet the question is repeated in nearly every convention. I, for one, doubt whether we will ever be able to keep bees in a prosperous condition through the forepart of the summer, and at the same time prevent natural swarming. I have, however, demonstrated the fact that bees, after they are prepared as above for "storing surplus," can be allowed to swarm and still retain the full working force, or so nearly so, that no practical difference can be perceived. I have given a full explanation of my plan on page 329 of the BEE JOURNAL for 1885. This plan may be so carried out as to allow the bees to cast the first swarm, and never an after-swarm, and never reduce the working force of the old colony.

For a few days before a colony casts its first swarm, the hive will be crowded full of bees, and during the heat of the day large clusters will often hang on the outside of the hive and remain idle until the temperature is reduced in the hive. I think that bees behave thus more for the fear that their combs will melt, than because of the want of air to breathe. These idle bees could just as well be working combs if it were safe for all to remain in the hive. When I no-

tice them thus clustering out, I raise the hive-covers (not enough to allow bees to pass out or in), and slip the point of a small wedge into the opening, and the pent heat passes out; thus a healthy current is immediately moving up through the hive, and the cluster outside of the hive seems to be soon made aware of the fact, and will all enter the hive in a short time, and resume work. This plan works much better than giving extra ventilation below and none above. These wedges must be taken out at sundown.

Orlon, 9 Wis.

For the American Bee Journal.

The Ohio State Convention.

EARLE CLICKENGER.

The bee-keepers of Ohio convened at State Fair on Sept. 2, 1886, and the following are a few of the questions answered at that meeting:

Who has had any experience with Syrian or Cyprian bees? Mr. Newlove claimed good results from Cyprians, and said that they are good workers but rather vindictive. Dr. Besse argued in favor of Syrians as being productive.

A. Benedict does not want too much late breeding in the fall. Mrs. Culp does not pay any attention to stimulating brood-rearing in the fall. J. Irick gave some good experience in stimulating and wintering bees. Mr. Jones, of Delaware county, claimed that he lets his bees take their natural course.

Mr. Benedict does not want too many late young bees reared in the fall, and compares them to late, unfeathered chickens, consuming more food in the first three weeks of their lives than afterward.

Is there any better bee than the Italian? No.

Would it be a good plan to introduce all the different strains of bees in the same apiary? Yes.

Is it best to remove old combs? Dr. Besse replied that old combs were the best to winter bees on, with the honey near the bees.

Earle Clickenger, of Columbus, said that he extracts his honey when partly capped; places the honey in jars in a warm room at a south window, leaving one cloth down in the honey, and another tied over the top. He finds that the honey will evaporate and thicken as well as when left on the hive, and with less expense and work.

It was confirmed that the display of honey on exhibition was the best ever shown in the State. The following is a list of premiums awarded: A. S. Goodrich, of Worthington, on comb honey, 1st premium; on extracted honey, 1st; on comb and extracted, 1st. Earle Clickenger, of Columbus, on comb honey, 2nd premium; on extracted honey, 2nd; on comb and extracted, 2nd; on honey-extractor, 1st; on bee-feeder, 2nd; on bee-hive, 2nd. Dr. H. Besse, of Delaware, wax-

extractor, 1st premium; thin foundation, 1st; shipping-crate, 1st. Chas. Melane, of New London, best 12 sections, 1st premium; crate of comb honey, 1st. Aaron Benedict, Benington, nucleus of Italian bees, 1st premium; display of queen bees, 2nd. C. E. Jones, of Delaware, heavy comb foundation, 1st premium; shipping-case, 1st. J. W. Newlove, of Columbus, queen-bees, 1st premium; nucleus of bees, 2nd; wooden feeder, 1st; extractor, 2nd. Elias Cole, of Ashley, Bingham bee-smoker, 1st premium; uncapping-knife, 1st; bee-veil, 1st; bee-hive, 1st.
Columbus, © Ohio.

Gleanings.

Sweet Clover for Honey.

J. A. GREEN.

There is a great deal of sweet clover in this locality, growing along the river banks and other waste places, as well as along the roads, which in some places are lined with it for miles. I find that most persons are apt to regard it as a nuisance along the roadside, and many land-owners wage war on it with more or less persistency and success. Some of the objections which they make to it are well founded, while others are unfounded or unimportant.

The principal reason why it is objected to, I think, is the fear that it may prove a noxious weed. It is a strong, rapid grower, readily becoming established, usually holding its own tenaciously when once it gets a start, killing out other plants, and spreading from year to year. These are the recognized qualities of the worst weeds; and the farmer who sees it march along the highway and settle down in front of his place, as though it had come to stay, is apt to be alarmed at the thought that some day it may perhaps take a notion to invade his fields in just that way. His fears are groundless, though. Its seed will not start in a close sod; cultivation readily kills it; and even after it has taken complete possession of the soil, close mowing, so as to prevent any seed from maturing for two successive seasons, will eradicate it completely.

I have ridden for miles along a road where all the space between the fences, except a narrow wagon-track, was thickly covered with sweet clover, yet not a single plant was to be seen inside the fields. I have occasionally seen sweet clover growing inside the fence along the roadside; but it is a suggestive fact that it is almost always the old tumble-down fence that lets the sweet clover through, while a good fence keeps it from the well-tilled fields beyond, as completely as it repels stray stock. There is a moral here, if you go deep enough.

Now, what can we say in favor of sweet clover, to the man who cares nothing about its value to the bee-keeper as a honey-producing plant? I can only say that it often takes the

place of less desirable plants, and that its modest blossoms with their grateful perfume combine to render the highway beautiful and fragrant. Can we say anything more practical?

Many who object to the rapid spread of melilot on the highway, accuse the bee-keeper of planting it, when they themselves not only cultivate the ground, but sow its seed. Sweet clover, unaided, can do little to extend itself. Its seed is too heavy to be carried far by the wind, and it is not provided with any means of attaching itself to passing objects. The most efficient agent in distributing its seed is the man who leaves the ordinary track for the roadside when the roads are muddy in the spring. In this way the surface of the ground is broken up and prepared for seed, while the wheels of his wagon and the feet of his horses, sinking into the ground where seed fell the autumn before, pick up portions of the soil filled with the seed and carry it along for rods, and sometimes for miles, and there drop them to form a new nucleus of growth. Sweet clover is apt to spring up wherever any grading of roads is done; and the man who plows the roadside for the purpose of scouring his plows, though an enemy to humanity in general, is a friend to the bee-keeper in a sweet clover district.

While under favorable circumstances the seed will grow and do well if sown at any time of the year, it will be much more apt to grow on uncultivated ground if sown in the fall, so the snows and rains of winter and spring may beat it into the ground.

The sweet clover honey gathered here is nearly if not quite as light colored as that from white clover, while the flavor is, in my opinion, superior. When the honey is unmixed it requires no expert to tell that it was gathered from sweet clover, especially if freshly gathered. In extracting newly gathered sweet clover honey, the current of air coming up out of the extractor is laden with a perfume as distinct and unmistakable as that experienced by holding a bunch of the blossoms to the nose.

Dayton, 3 Ills.

For the American Bee Journal.

Sugar for Winter Stores, etc.

J. H. ANDRE.

For several months past this subject has been quite thoroughly discussed in the BEE JOURNAL. A great deal of it has been interesting, while some has been amusing. Some claim that it puts the price of honey down, and builds up the sugar business.

Suppose one does not use an extractor at all, but works his bees for comb honey; he has no honey to feed without either purchasing or using surplus. If he uses the latter, at say a cost of 12 cents per pound, and can get granulated sugar for 7 cents per

pound, which will make syrup of the same consistency for less than half the cost per pound, does he make or lose? If he has extracted honey to feed it is a little better, but now suppose he takes it and trades pound for pound of sugar and uses it instead of honey (I prefer a pound of sugar to a pound of honey for feeding purposes); he disposes of his honey and gets sugar which answers his purpose better, certainly in quantity, and, so far as I can see, in quality also, for according to popular opinion it is no use to feed in the fall (see page 516), and not in the spring until pollen begins to come in; and at any time it does not make that daubing work that honey is apt to, unless care is used, and as it has but little odor it is not apt to call robber bees.

The usual price for extracted honey will purchase about one and one-fourth pounds of sugar for one-pound of honey, and if it will answer just as well, is it not like using a rake all day with half of the teeth out for the sake of saving one standing handy by in perfect order, to use honey instead of sugar? I fail to see how anything can be lost in disposing of an article and purchasing another that will answer the same purpose at less cost.

If my memory is right, sugar becomes cheaper each year, and if feeding it to bees helps the trade it must do it by an increase in the amount sold, instead of increase in the price. I have used sugar in the spring for the purpose of hurrying up breeding, and also to help fill up the brood-chamber, for I do not think one will get much surplus with a large empty brood-chamber, and I think for each pound of syrup fed, costing less than 5 cents per pound, I have received 3 pounds of comb honey. In regard to getting a name for selling sugar-honey, I am not at all afraid of it; each section is labeled "warranted pure," meaning that it was gathered from the flowers, and it is a pretty dear job to accuse of adulteration without proof. I make no secret whatever of telling wherever I sell my honey that I feed sugar in the spring.

Buckwheat furnished an unusual quantity of honey this season. For several days bees came in heavily laden late in the evening, and during a bad drouth too. They hardly ever work upon it here in the afternoon. But as I predicted some time ago, it all went into the brood-chamber, with the exception of a few strong colonies. Some stored 20 pounds of surplus from it. I shall be thankful if they have secured enough for winter stores. It is quite likely it will be mostly used in brood-rearing, and leave many colonies light in stores, but otherwise in a prime condition for winter.

One of my colonies gave me over 100 pounds of surplus; another 85 pounds. The average will be about 50 pounds per colony, spring count.

There was some frost here on the morning of Sept. 1, but so far as I have heard, it did no harm. We also had frost in July and August.

I wish to give a description of a knife that I use: Take a piece of cross-cut saw plate of ordinary thickness, draw the temper just enough so a cold-chisel will cut it, or if the chisel will mark it, do not draw the temper. Cut out a piece $7\frac{1}{2}$ inches long, leave one end from $2\frac{3}{8}$ to $2\frac{1}{4}$ inches wide, run it down tapering $\frac{1}{4}$ inches in length to $1\frac{1}{2}$ inches, also $1\frac{1}{2}$ inches at the end. Dress off the edges smooth, drill three holes through the handle part, get a good piece of wood for a handle a foot or more in length, and dress one end of it in the shape you wish it for a handle. It should be quite large. With a rip-saw split it in the centre far enough for the handle, slip in the knife, fasten with screws and saw off the handle the length you wish. (Apple wood makes the best handle.) Do not grind the blade too thin nor too sharp. It should also be hard and stiff.

It is one of the neatest things about an apiary to clean sections and hives or pry frames loose. Three hours' work was all the time it took to make mine, and I would give \$5 for one for one season if I had 20 colonies of bees to take care of, rather than do without one. If one cannot get the plate steel of the right thickness, it would be best to send to some cutlery manufactory and get it made, for a common blacksmith would not be apt to make a good one.

Lockwood, N. Y., Sept. 6, 1886.

For the American Bee Journal.

Convention at Indianapolis.

WM. F. CLARKE.

MR. EDITOR:—Your editorial remarks on the above subject, on page 563, are timely and impressive. They are well calculated to make us all,

"Walk thoughtful on the sad and solemn verge
Of that vast ocean we must sail so soon."

It affects me much to think how few are left of the "original charter members" of the North American Bee-Keepers' Society. I think you are in error when alluding to Prof. Cook as having been present at the meeting of Dec. 21, 1870. He was one of the most active in getting up the meeting, but, if my memory serves me correctly, he was not there. You speak of myself and Aaron Benedict as "the only ones found among the workers of to-day," who were on the committee that framed the constitution. Is not Elisha Gallup still "to the fore" as an "active worker" in California? I shall make a great effort to be at the Indianapolis meeting, and it looks very much as if I should have to say, if present, "I only am left!"

With the utmost good nature, permit me to rap your editorial knuckles for speaking of the forthcoming meeting as the "National Convention." From the outset, it has been "International" and "Continental." We Canadians are very sensitive on this point, and want to have it duly recognized at all times. I must admit that

the programme looks very "National," as there is not a Canadian on it; but we are told there are "many good things yet to be added," which are not "sufficiently developed." I shall therefore hope that this deficiency will be supplied in a revised programme.

It is unfortunate that the convention comes at a time when several of our most prominent Canadian beekeepers will be absent in England. D. A. Jones, President Pettit, R. McKnight, and S. Cornell are at the great Colonial Exhibition at Kensington, England, at which Canadian beekeepers are making a grand display of honey with a view to creating a more extensive British market for that product. Owing to their absence, I fear there will be a kind of baulk in connection with the annual meeting of the Ontario Bee-Keepers' Association, which should be held next week, but which it is proposed to convert into an informal "bee-talk."

I have not yet heard of any other Canadian beside myself who proposes being present at the Indianapolis Convention, but when I meet "the brethren," as I expect to do next week at Toronto, I shall do my best to persuade some of them to go. It will be too bad if I have to "play a lone hand" as I did Dec. 21, 1870; nevertheless, even in that case, I shall try hard at least to score one point! Guelph, Ont.

[Upon further investigation, we rather think that Prof. Cook was not present at the meeting on Dec. 21, 1870. Mr. Gallup has for more than ten years been lost sight of in bee-keeping circles; only once in awhile even writing a few lines for publication; he certainly is not "one of the workers of to-day." As to our use of the words "National Convention," Mr. Clarke is correct. It should be called "International" or "Continental." It is so generally called the "National Society," that we for once fell in with the crowd. We hope that there will be a large attendance at the International Convention of Bee-Keepers at Indianapolis.—ED.]

For the American Bee Journal.

Wintering Bees, etc.

O. N. BALDWIN.

Mr. G. F. Robbins, on page 567, asks for witnesses on the "pollen theory." He gives the evidence in brief that has been written out at length in the BEE JOURNAL, to show why bees die with diarrhea. If bees die from wintering on natural stores, our great King of the universe made a great mistake when He created the bees with an instinct to gather the nectar and pollen from flowers, and store it for their use in winter.

When we look around us and examine into the workings of God's law

and see how carefully and wisely each cog fits its fellow pinion, we shake our head and say, thy foolishness is our wisdom.

It is hardly reasonable to think that those who advocate that bees will not winter on natural stores as well as sugar, really believe it is a fact. There is nothing in it, *absolutely nothing*. If you put your bees away in a temperature of 40°, with plenty of good natural stores, in a dry, dark place, with ventilation top and bottom, so that their breath will not mould and sour their food, you will not lose a colony from their eating pollen.

I obtained 4 colonies from a neighbor last fall, about Nov. 1. They had scarcely any honey, but were strong in bees. I moved them into my honey-house and transferred them on foundation in confinement. I then rendered the pollen, honey, wax, and strained all I could through a sieve, and added sugar and water to make 10 gallons of thick syrup. I took the wax off the top when all was cold and fed the rest to the bees. These bees were not allowed to have a flight till Dec. 31, when they were taken out of the cellar (where they were removed to from the honey-house after feeding), and were left out to fly four days during the warm weather of the first of last January. On Feb. 16 they were again put out, and two of the strongest colonies were dead, but upon examination they had not died until they had eaten all of the pollen and honey (died for want of pollen). The two still alive were put back and fed after having a flight, and taken out again on April 1 to stay.

I keep my bees in a dry cellar, light, tight, at a temperature of about 40°, with ventilation top and bottom sufficient to keep the combs from molding, and I never lose any only from the want of pollen and honey. Try it, and you will never have to save your bees by giving them taffy.

I notice that Mr. F. A. Ticknor says on page 568, that the apiarist who does not get an average of 150 pounds of honey and one swarm from each colony, spring count, is not up to the standard in bee-culture. I would like to put Mr. Ticknor and his bees on our pasture for one season, when I think I would convince him that this world is not all a garden of Eden for bees to work in. Yet I consider that I have done well to get 50 pounds per colony, when my neighbor, not 40 rods away, has not obtained 50 pounds from 30 colonies the whole season, and another only 125 pounds from 40 colonies.

In answer to Query, No. 302, to prevent after-swarms, the method given by G. W. Demaree is *par excellence*. I have tried it, and I am satisfied that it is the most practical plan. But I do not just understand how to keep bees from issuing the first time, provided one has all the bees he wants, and does not desire increase.

I have been experimenting the last two years in fertilization of queens by artificial means, and have this year made a complete success of it. Out of over 200, only one proved faulty,

and I now believe that it is not necessary to ever have a failure. The trouble is not in the queen, as has been so much reported; she may be fertilized at any time within an hour after she crawls out of the cell, or when she is 20 days old.

Clarksville, Mo.

For the American Bee Journal.

Chief Cause of Foul Brood.

GEO. H. HOYLE.

The following are some of the facts I intend to prove; and I hope I state them plain enough, that those who wish to argue the question, can see exactly the position I take:

1. That the disease is not contagious, in the manner generally supposed.
2. That it cannot be cured by drugs or starvation.
3. That it does not appear (of any moment) in a good honey season.
4. That most cases can be cured by extracting and boiling the honey and feeding it back; and that any case can be cured by feeding good honey or sugar syrup; except in a very few rare cases where the fault lies with a puny, no-account queen.

I claim that the chief cause of this disease is bad honey or honey-dew. Whether some of the inferior honey-dew gathered by the bees is poisonous to the larvæ, or whether it lacks the necessary essentials for the larvæ's healthy development, I am unable to say. It is certainly one way or the other.

A little over a year ago, when I was trying to cure my bees of foul brood, I was as firm a believer in the germ theory as any of my readers can possibly be; but since having a great deal of experience with the disease, and having read every thing on the subject in the bee-papers, I am firmly convinced that bacteria never attacks the larvæ of the honey-bee except when the larvæ are weakened, or ill from some other cause; and, that there is no remedy known that will benefit a colony of bees afflicted with the disease, unless it is accompanied by good healthy food. In fact the food is all that is necessary.

It has been a puzzle to a great many bee-keepers, why bees would carry the disease in the honey and not on their bodies. Considering how small the spores are said to be, and regarding the disease from the germ-theory standpoint, that they do not carry the disease on their bodies is a wonder indeed. That "the disease is carried in the honey," is admitted by nearly every writer on the subject; although the germs in the honey have yet to be discovered by the microscopist. I say it is in the honey too, but not the spores of the bacteria, but that the honey is from some other cause unfit for the use of bees in brood-rearing. As to the bees carrying the disease in the honey, why, certainly if the honey is unfit for the larvæ in one hive it is unfit for those in another.

To those whose bees have the disease, I wish to say that if they were to burn everything connected with their apiary, and commence again, their bees would be just as apt to have it next year as they will be if they keep the same combs they have now. The advocates of the different cures have sufficient reasons for their beliefs, and I respect them as much as I ever did; for I do not believe (as some writers seem to) that in order to gain popularity in my belief, I must depreciate the works and good understanding of those who happen to differ from me.

Mobile, 9 Ala.

For the American Bee Journal.

The Season of 1886, etc.

ASA PINKERTON.

When the honey season commenced I had 106 colonies, the most of them in pretty good condition, but I was behind with sections; yet I thought I was all right, as I had the best kind of a hired man, and we had the garden and field work all in good shape. But just when the honey season commenced my man was taken sick, and continued so for a month, so that left too much work for myself, and I was depending upon a neighbor to furnish me with sections, and he got behind and let me get clear out of sections twice before the honey season was over.

But after all the trouble, I got a little honey, and increased my bees to 170 colonies. I have taken off 5,164 pounds of comb honey, and I think I have 100 or 200 pounds to take off yet, and I will have over 6,000 pounds of extracted honey. I feel that I have been paid for my trouble, if I did work hard, and you can guess whether I had to work or not, as for quite awhile that I had from 5 to 12 swarms per day. I put all second-swarms back.

I told a man one day that the time would come that we would have the bees trained to swarm and go into the hive themselves, and that same day, just after dinner, I had a large swarm come out, and they made a few whirls and came over the top of the cherry trees and right down to the ground and into a hive that I had placed on a stand three or four days before. That was June 12, and they filled their hive and stored 56 pounds of honey in the sections. I had one swarm issue on June 7, and I picked up the queen in front of the hive, and she had no sign of a wing. I hived them, and they filled the hive and stored 112 pounds in the sections, and the old colony stored 79 pounds in the sections. The best colony I had that did not swarm produced 142 pounds in the sections.

I notice on page 551, a chapter of lamentations written by Joe King. I am not acquainted with the gentleman, but I think that the bee-stings and the wonderful quantity of honey, and great heaps of money, must have affected his mind as well as his nerves, or else his house is not so very strong, as I have been told by a lady

that he only has a few bees and about a wagon load of honey. For myself, I have not been alarmed yet, though I sleep under 4,000 pounds, and eat under 5,000 pounds of honey, and I never think of getting "sweetened up." I have been selling from 25 cents to \$39 worth every trip, and I do not have any fears of the bank's breaking, as long as I can furnish them plenty of money; nor I do not fear burglars, as long as it is warm enough so I can sleep with the doors and windows open. My pockets are all right, and if they do wear out, a ½-pound of honey will get cloth for a new pair.

Should the above appear in the BEE JOURNAL it might be the means of Mr. Joe King and his neighbor bee-keepers getting better acquainted.

Marshalltown, Iowa, Sept. 1, 1886.

For the American Bee Journal.

Feeding Sugar to Bees.

H. E. HILL.

I think that few, if any, will dispute Mr. Hutchinson's claim, that "whether lowering the price of honey will put bee-keeping down, depends altogether upon what lowers the price." But if the price is lowered as the result of producers' giving the public occasion to believe that honey is obtained by feeding sugar (which Mr. H. acknowledges to be a fair objection to the use of sugar), are "bee-keepers more prosperous than ever?" I think not.

Then Mr. Hutchinson broadly refers to "sugar feeding," the "extractor," "comb foundation," etc., as "improvements in bee-keeping." I frankly acknowledge this to be too deep for my comprehension, as I have yet to learn why the use of an article that ("fairly") gives grounds for suspicion, thereby decreasing the demand, and consequently the price of our product, should be regarded as an "improvement."

As another excellent feature of sugar to bee-keepers, Mr. Hutchinson infers that by its use the cost is reduced. This needs only to come before the notice of some benevolent enthusiast to cause a repetition of the "Wiley" sensation. I think the article, as it is copied from one paper to another, will stand: "A prominent Michigan apiarist says," etc. However, we will suppose again, that by the use of sugar the cost of producing honey could be reduced 25 per cent., and as the result of giving the public "fair" ground for making "unjust accusation" and circulating false statements, the returns from our business are reduced 40 per cent., is the prosperity of bee-keepers advanced by the practice?

I have never known any one to dispute that the extractor was an improvement in apiculture, and with one or two exceptions I believe comb foundation was heartily welcomed by all as a decided improvement; but when an "improvement" requires several years of writing up to con-

vince a very small per cent. of beekeepers that it is otherwise than an absolute curse to our business, and its advocates are compelled to acknowledge that it "may" give cause for unjust accusation. I think the term "improvement" is scarcely applicable.

Thanks, Mr. H., for your correction, and if you will act in accordance with the suggestion, by stating "the *pro rata* loss of bees wintered on sugar stores compared with that of those wintered on natural stores," although it may not assist your argument a very great deal, you will confer a favor upon many readers of the BEE JOURNAL.

With regard to "Shall we stop using foundation?" Foundation is made from pure beeswax, which is solely the production of the apiary, and certainly its use should not be abandoned on the grounds that "sugar feeding" is objected to. Titusville, 6 Pa.

For the American Bee Journal.

Experiments in Bee-Keeping.

F. M. JOHNSON.

In three Langstroth and two American hives placed in a dry, dark cellar, with no extra ventilation, I observed that with the temperature at 36° (during a cold spell last January), the colonies (all strong) were buzzing quite lively. At the same temperature in February, they were all quiet, the 5 colonies, however, seemed a little uneasy, having closed top frames except a row of small holes across the centre of the frames. Moisture would condense and drip from the hives. When taken out on March 18, the combs were damp and moldy, which was not the case with the other 3; having porous material over them, not half a tea-cupful of dead bees was taken from all of them, and no sign of any disease.

At the commencement of apple bloom I transferred those in American hives into Langstroth hives, which were first to swarm. All did well until the drouth was fairly on, when they loafed about as too many others do that do not produce honey, or anything else, in fact.

To experiment, I used plain foundation starters in sections on four different hives, placing from two to ten in different parts of the case; in every instance the bees would nearly or quite fill the sections where pressed foundation was used, and would not work on the plain, only as they were compelled to, which is in harmony with the answers given to Query, No. 283.

I also tried one tier of sections with open sides as well as top and bottom, in the centre of case with division-boards out, so that they might have fair sailing over and around them. They went into the end tiers first. I think they will answer in hot weather with a good flow of nectar. I do not want them, or plain foundation either. I also tried Dr. Tinker's suggestion,

of dividing the sections into groups of two to five, by wood and tin separators; but I could perceive no difference as to straightness of combs or otherwise.

I use sections 5 $\frac{1}{4}$ x5 $\frac{3}{4}$ x1 $\frac{3}{4}$ inches, three tiers with $\frac{1}{2}$ -inch division-boards, which fills the case; or two tiers crosswise of the frames, with $\frac{1}{2}$ -inch division-board, which I prefer, with the ends of cases rabbeted for shallow frames. I can change from producing comb honey to extracted in the whole or in a part at any time with the same case. The division-board is flush with the top of the sections. A strip of thin iron $\frac{3}{4}$ of an inch wide, put on with two small screws, renders the case invertible; which I have tried with good results. I prefer a bottom-board just the size of the hive, $\frac{5}{8}$ or more thick, with a cleat $\frac{5}{8}$ x1 $\frac{1}{2}$ inches nailed on its back end, and one 5 inches wide at the front end, which is 3 $\frac{1}{2}$ inches for alighting-board, with the end of the bottom-board beveled also. The inner edge of the end board of the hive prevents storms from beating into the hive. It is clamped or hooked to the hive.

Augusta, O. Iowa.

North American Bee-Keepers' Society.

FRANK L. DOUGHERTY.

The North American Bee-Keepers' Society will hold its 17th annual convention Oct. 12, 13 and 14, 1886, at Indianapolis, Ind. The meeting will be held in Poffin's Music Hall, 82 and 84 North Pennsylvania Street, one of the most pleasantly situated halls in the city, having good ventilation and plenty of light. The Society headquarters will be at the Occidental Hotel, corner of Washington and Illinois Streets. The regular rates of this hotel are \$3 per day; special rates for those in attendance at the convention, \$1.50 per day.

The Northwestern Bee-Keepers' Society, the Indiana State Society, the Eastern Indiana, with various county and joint societies will meet in union with the North American, making it one of the most important meetings of bee-keepers ever held in the country.

Ever thing possible will be done to make the meeting pleasant and entertaining. An earnest, cordial invitation is extended to all.

The following is the programme for the three days:

FIRST DAY—TUESDAY.

Forenoon Session, 10 a.m.—Convention called to order. Address of welcome, by Gov. I. P. Gray; "Response" by the President, H. D. Cutting; "Welcome to the City," by Mayor Caleb S. Denny; "Thanks," Dr. C. C. Miller, President of the Northwestern Society. Calling the roll of members of last year. Payment of annual dues. Reception of new members and distribution of badges; reports of Secretary and Treasurer. Announcements.

Afternoon Session, 2 p.m., Special Business.—Annual address of the President; "Bee-Studies," Prof. A. J. Cook, Agricultural College, Mich.; "Apicultural Journalism," John Aspinwall, Barrytown, N. Y.; "Bee-Literature," Thomas G. Newman, Chicago, Ills.; "The Coming Bee—What encouragement have we to work for its advent?" R. L. Taylor, Lapeer, Mich. Subject for discussion, has "Apis Americana" been reached?

Evening Session, 7:30 p.m.—Announcements. Miscellaneous business. Discussion of questions that may have accumulated during the day.

SECOND DAY—WEDNESDAY.

Morning Session, 9 a.m.—Announcements. Communication. Call of the Northwestern Society to elect officers. Election of officers of the Indiana State Society. Call to order. "Rendering Comb into Beeswax," C. P. Dadant, Hamilton, Ills.; "Foul Brood," A. J. King, New York. "North American Bee-Keepers' Society—Past, Present and Future," Rev. W. F. Clarke, Guelph, Ont. Selection of place for holding meeting in 1887. Election of officers.

Afternoon Session, 2 p.m.—Announcements. Miscellaneous business. "Bee-Keeping and Apiculture," Prof. N. W. McLain, U. S. Apicultural Station, Aurora, Ills.; "Feeding Bees for Winter," Jas. McNeill, Hudson, N. Y.; "Wintering Bees," Dr. J. B. Mason, Wagon Works, Ohio; "Solid Truths relative to the Apicultural Interests of the east coast of Volusia county, Florida," by John Detwiler, New Smyrna, Fla. Subjects for discussion, "Is the use of Foundation Necessary in Modern Bee Culture?" "Are Perforated Honey-Boards a Success?" Unassigned essays.

Evening Session, 7:30 p.m.—Announcements. Miscellaneous business. Discussion of questions in question-box. Social communications.

THIRD DAY—THURSDAY.

Morning Session, 9 a.m.—Announcements. Miscellaneous business. Communications. "The National Bee-Keepers' Union," by Thomas G. Newman, Chicago, Illinois. "A Talk on Hives," by James Heddon, Dowagiac, Mich.; "Reversible Hives and Frames," J. E. Pond, Jr., Foxboro, Mass.; "Drones and Drone Comb," W. Z. Hutchinson, Rogersville, Mich.; Reports of Vice-Presidents; "Progress of Bee-Keeping in Indiana," Jonas Scholl, Lyons Station, Ind. "The Future of Bee Culture," G. W. Demaree, Christiansburg, Kentucky.

Afternoon Session, 2 p.m.—Announcements. Miscellaneous business. Explanation of various articles on exhibition. Indianapolis, Ind.

Convention Notices.

The annual meeting of the Kentucky State Bee-Keepers' Association will be held at Frankfort, Ky., on Oct. 6 and 7, 1886. All interested in bee-culture are earnestly requested to attend and help to make this meeting a pleasant and profitable one. The State Centennial will be celebrated at Frankfort, on Oct. 7, and excursion rates can be obtained on all railroads. A large attendance of bee-keepers is solicited. JNO. T. CONNLEY, Sec.

The St. Joseph, Mo. Inter-State Bee-Keepers' Association will hold its annual meeting on Wednesday evening of the Exposition week, September 30, 1886. Arrangements are being made to have an interesting meeting. The place of holding the meeting will be published in our local papers on Tuesday and Wednesday a.m. E. T. ABBOTT, Sec.

The Sheboygan County Bee-Keepers' Association will meet at Chandler's Hall, at Sheboygan Falls, Wis., on Saturday, Oct. 16, 1886, at 10 a.m. MRS. H. HILLS, Sec.

The annual meeting of the Western Bee-Keepers' Association will be held in Pythian Hall (11th & Main Sts.), at Kansas City, Mo., on Oct. 27—29, 1886. P. BALDWIN, Sec.

The next annual meeting of the Michigan State Bee-Keepers' Association will be held in Ypsilanti, Mich., on Dec. 1 and 2, 1886. H. D. CUTTING, Sec.

The Southern Illinois Bee-Keepers' Association will hold its next meeting at Benton, Ills., on Thursday, Oct. 21, 1886. F. H. KENNEDY, Sec.

Local Convention Directory.

Time and place of Meeting.

- Oct. 6, 7.—Kentucky State, at Frankfort, Ky.
Jno. T. Connley, Sec., Napoleon, Ky.
- Oct. 7.—Wis. Lake Shore Center, at Kiel, Wis.
Ferd Zastrow, Sec., Milwaukee, Wis.
- Oct. 12-14.—North American, at Indianapolis, Ind.
F. L. Dougherty, Sec., Indianapolis, Ind.
- Oct. 16.—Sheboygan Co., at Sheboygan Falls, Wis.
Mrs. H. Hills, Sec., Sheboygan Falls, Wis.
- Oct. 19, 20.—Illinois Central, at Mt. Sterling, Ills.
J. M. Hambaugh, Sec., Spring, Ills.
- Oct. 21.—Southern Illinois, at Benton, Ills.
F. H. Kennedy, Sec., Duquoin, Ills.
- Oct. 27-29.—Western, at Kansas City, Mo.
P. Baldwin, Sec., Independence, Mo.
- Dec. 1, 2.—Michigan State, at Ypsilanti, Mich.
H. D. Cutting, Sec., Clinton, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Favorable Season.—W. J. Cullinan, Mt. Sterling, Mo. Ills., on Sept. 9, 1886, writes:

This season may be classed among the favorable seasons for this locality. My bees averaged 60 pounds of comb honey and 11 pounds of extracted up to Sept. 1, after leaving them ample stores for winter; and they are now storing honey as rapidly as at any time during the summer. I could have secured 150 or 200 pounds more honey only for rearing queens. I find it expensive business to rear queens early in the season. We had a nice rain last evening, which will help the flow in this vicinity.

Heavy Fall Flow of Honey.—Wm. H. Graves, Duncan, Mo. Ills., on Sept. 10, 1886, says:

I now have 100 colonies of bees. I have had one of the heaviest flows of fall honey I ever saw up till now. Bees are still at work, mostly on black-heart. I live on Spoon river, and the bottoms are covered with it.

The Lexington, Ky., Fair.—N. H. Rowland, Keene, Mo. Ky., on Sept. 9, 1886, writes:

The Lexington, Ky., Fair has just closed. It was, as ever, a splendid show. The exhibition of "live stock" was not to be excelled, and rarely equalled in the world. The attendance was the largest ever known in the history of the association. Among other distinguished visitors was the Governor of Utah, who is a native Kentuckian. The bee and honey department was represented chiefly by the Mucci Bros., who showed some very fine imported queens, together with the original packages in which they were expressed from Italy. They also exhibited two cages in which they had received two queens by mail from Italy. Mr. Mucci

told me that he had succeeded after much trouble and correspondence in getting them by mail direct from Italy. A "spring frame hive" was exhibited by Mr. Martin—the same hive which took the premium at the New Orleans Exposition. Careful examination revealed no new feature of any practical benefit. The frames have no projecting top-bars, but rests on legs; a brass wire in each end of the frame slips in a saw-cut in the end of the hive, and holds the frame laterally, but does not support the weight of the frame when full of honey, consequently any operation requiring the super to be lifted would allow every frame to slip out of the hive! There are also two sizes of frames in each hive, which fact alone would preclude its extensive use. The old gentleman is an enthusiast, however, and thinks he has a bonanza! Mr. W. Frank Storm, a bee-keeper of the city, made conspicuous by his badge of scarlet and gold lace, was on hand showing and explaining to the curious and interested. Everything shown was neat and attractive.

Good Results.—D. S. Way, Urbana, Mo. Iowa, on Sept. 8, 1886, writes:

Bees are in splendid condition in this part of the country. I have extracted 1,200 pounds of white clover and basswood honey from 14 colonies, this season, which I think is good for a new hand at the business.

Cleaning Bee-Smokers.—Robt. Corbett, Manhattan, Mo. Kans., says:

For cleaning the nozzle of a bee-smoker, take a piece of hard wood the full size of the base of the nozzle, tapered to fit completely. Rim off one corner and insert a steel or iron plate at right angles, having the same bevel. Use this while the nozzle is hot, as a scraper, followed by a swab of the same taper, and you can keep your smoker in order. If it is not in order the force of the bellows, in a measure, is lost. To tell 3, 4, or 6 months ahead, when a cold spell is coming in the summer: Whenever the moon news or changes, with the sign of or zodiac in the neck, we will have frost in all the Middle States, and cold in the more southern States. No matter whether in May, June, July or August, it is sure to come at the time.

My Experience with Bees.—Rev. J. Hunt, Plain City, Mo. Ohio, on Sept. 14, 1886, writes:

I have been engaged in the bee-keeping about ten years. I have now about 20 colonies; I have had more at times. I started with one colony of Italian bees, bought for \$12, and all I have now have sprung from them. I started with no experience, but with enthusiasm and hope; I have made some mistakes, and met with losses, especially in wintering. Several persons in this vicinity have taken up bee-keeping, but became discouraged and gave it up. They found that it took as much time, money and calcu-

lation to make a dollar as it would average in other kinds of business. When I commenced, white clover honey in boxes sold for 25 cents; now the best comb honey in sections is sold for 17 cents; probably to fall still lower. To have an outfit in an apiary of what is convenient and necessary, is expensive, and unless one is a good mechanic and aims to keep down expenses, he will find it difficult to pay them out of his bee-profits.

Building Combs on Trees.—Grant Stinger, Unadilla, Mo. Neb., on Sept. 6, 1886, writes:

On Sept. 1, 1886, I found a swarm of bees on a box-elder tree, that must have been hanging there longer than bees usually do when they swarm, as they had built comb enough to fill 5 Langstroth frames, had brood hatching out, and were going on with their work as busily as if they had been in a hive. They had nothing over them but the green leaves and blue sky. Is not this strange? I have 8 colonies of Italian bees; can I winter them successfully in chaff hives out-of-doors?

[It is not usual for bees to locate and build combs without anything to protect them from the weather. You can successfully winter bees in chaff hives on the summer stands if not in a locality too cold or too much exposed.—Ed.]

A Kentucky Bee-Killer.—Clarence M. Weed, Champaign, Mo. Ills., writes:

Mr. G. H. Lillard, of Napoleon, Ky., sends a specimen of a large black and yellow fly much resembling a bumble-bee, stating that "they catch the bees and suck the life from them;" and asking to what species it belongs. The insect proves to be *Mallaphora orcina* Weid., which, so far as known to the writer, has no common name to distinguish it from the several other bee-killers or bee-catchers. It belongs to the great family of predaceous two-winged flies, *asilidae*, and hence is related to the Nebraska bee-killer (*Promachus bastardii*). This specie measures an inch in length, with a wing expanse of 1½ inches. An excellent description with a rather poor illustration of it may be found on page 320 of the eighth edition of Prof. Cook's Manual of the Apiary. Of the habits of these flies, Prof. Cook writes: "Their flight is like the wind, and perched near the hive they rush upon the unwary bee returning to the hive with its full load of nectar, and grasping it with their hard strong legs, they bear it to some perch near by, when they pierce the crust, suck out the juices and drop the carcass, and are then ready to repeat the operation. A hole in the bee shows the cause of its sudden taking off. The eviscerated bee is not always killed at once by this rude onslaught, but often can crawl some distance away before it expires."



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Special Notices.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

Dr. Miller's Book, "A Year Among the Bees," and the BEE JOURNAL for one year, we will club for \$1.50.

A New Crate to hold one dozen one-pound sections of honey.—It has a strip of glass on each side, to allow the honey to be seen. It is a light and attractive package. As it holds but one tier of sections, no damage from the drippings from an upper tier can occur. We can furnish the material, ready to nail, for 9 cts. per crate. Glass 1½c. per light, extra.

Bees for Sale.—We offer to sell a few strong colonies of Italian bees, in ten-frame Simplicity hives, at \$6.00 each.

Red Labels for one-pound pails of honey, size 3x4½ inches.—We have just gotten up a lot of these Labels, and can supply them at the following prices: 100 for \$1.00; 250 for \$1.50; 500 for \$2.00; 1,000 for \$3.00; all with name and address of apiarist printed on them—by mail, postpaid.

Yucca Brushes are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructible. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Sweet Clover, or Melilotus Alba, is almost the only resource for honey now, on account of the late severe July drouth. If the seed is planted in September, it will come up this Fall and bloom next year, in its second season.

We have a large lot of this seed on hand, and offer it at the following **Reduced Prices**, by express or freight:

One pound.....	\$0 20
" peck—15 lbs.....	2 25
" bushel—60 lbs.....	7 00
" sack—80 lbs.....	8 00

It will pay to buy it by the sack and sell it again in smaller quantities.

If you want a chance to make some money, and provide pasturage for the bees during the Fall months, this is your opportunity!

Our Book Premiums.—To encourage all our present readers to get one or more additional subscribers we will present 25 cents' worth of books for every new subscriber (accompanied with \$1 for one year's subscription), sent direct to this office. Thus for five new subscribers with \$5, the getter up of a club gets \$1.25 in valuable reading matter, to be selected by himself from our list on the second page of this paper. It will pay you to devote a few hours to the interests of the BEE JOURNAL. Every one who keeps bees ought to take it. We will furnish sample copies free in any quantity to those who intend to get up clubs. We expect to get 5,000 new subscribers before Jan. 1, 1887.

The Latest Thing in the way of cheap books is a complete, unabridged, and illustrated edition of "The Count of Monte-Cristo," by Alexander Dumas, just published by T. B. Peterson & Brothers, Philadelphia, in a large octavo volume of six hundred pages, for 50 cents, making it one of the cheapest books ever published.

All are respectfully invited to attend the next meeting of the Bee-Keepers' Association of Eureka Springs, which will be held at Eureka Springs, Ark., on Oct. 23, 1886. Business of importance to every bee-keeper Northwest Arkansas will be before the meeting.

DR. S. S. PURCELL, Sec.

North American Bee Keepers' Society

The Chicago, St. Louis & Pittsburgh Railroad ("PAN-HANDLE ROUTE") take pleasure in hereby announcing to all delegates and their families desiring to attend the National Convention of Bee-Keepers' Union to be held at Indianapolis, Oct. 12, 13, and 14, that we have arranged to sell tickets to Indianapolis and return at \$7.30 each on certificate signed by Mr. Thomas G. Newman, General Manager Bee-Keepers' Union.

Tickets good going Oct. 11, and returning up to and including Oct. 16.

Morning trains leave Chicago, from the Union Depot, at 8:30, reaching Indianapolis at 3:50 p.m. Evening train leaves at 8:30. Night train has through sleeping-car, and day train has through parlor-car to Indianapolis.

We can offer you superior accommodations and would be pleased to receive your patronage.

Tickets will be on sale in exchange for certificate at Union Passenger Station, corner of Canal and Madison Streets, Chicago, also at 65 Clark Street, corner of Randolph Street.

Honey and Beeswax Market.

Office of the AMERICAN BEE JOURNAL,
Monday, 7 a. m., Sept. 20, 1886.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY.—It continues to arrive very freely. The demand is light and sales are made chiefly at 12½-13c. Extracted is also quiet with prices unchanged. 6½-7c.

BEESWAX.—It is easier, and 23c. is about all will bring.

R. A. BURNETT, 161 South Water St.

NEW YORK.

HONEY.—The market for the new crop of comb honey is just opening. We note an improvement in sales and prices. Most of the comb that has arrived is badly colored, which makes it second grade, which we suppose is due to a poor season and long finishing. We quote 18-6 crop as follows: Fancy white in 1-lb. sections, clean and neat packages, 15@16c.; 2-lbs., 12@13c.; fair to good 1-lb., 12@14c.; 2-lbs., 10@11c.; fancy buckwheat 1-lb., 11@12c.; 2-lbs., 9@10c. White clover extracted in kegs and small barrels, 6½-7c.; California comb honey, 10@11c.

BEESWAX.—Prime yellow, 22@24c.

MCCAUL & HILBRETH BROS., 34 Hudson St.

BOSTON.

HONEY.—New honey is coming in and selling fairly well, but the recent hot wave has checked it some. We have heard from most of the bee-men of Addison county, Vt., and they report that there will be but half a crop in that section. We are selling one-pound packages of white clover honey at 14@15c.; 2-pounds at 13@14c.

BEESWAX.—25 cts. per lb.

BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white in one-pound sections is bringing 14 cts.

BEESWAX.—Firm at 23c. for fair quality.

M. H. HUNT, Bell Branch, Mich.

CINCINNATI.

HONEY.—The market is very quiet. Demand from manufacturers is slow, and there is only a fair trade in new comb honey and extracted in square glass jars. Extracted honey brings 3 1-2-7c.; comb honey, 12 to 14c. for good to choice, in the jobbing way. Prices are low for all produce and no speculative feeling is noticed anywhere. Unless better prices are realized for other produce, prices of honey are not likely to advance.

BEESWAX.—It is in good demand and arrivals are fair. We pay 2½c. for good yellow.

C. F. MUTH & SON, Freeman & Central Ave.

CLEVELAND.

HONEY.—The demand for honey is not very lively at present, but prices are steady. Choice new honey in 1-lb. sections is selling at 14c.; 2-lbs. 12@13c. Honey is very dull at 10@12c. Extracted, 6½-7c.

BEESWAX.—25c.

A. C. KENDEL, 115 Ontario Street.

KANSAS CITY.

HONEY.—The market is active and sales of the comb are large. Extracted is firm with no stock in the city. We quote: One-pound sections of white clover, 13@14c.; dark 1-lb., 11@12c.; 2-lbs., 11@12c.; dark 2-lbs., 8@10c.; 2-lb. Calif. white sage, 10@11c.; dark 2-lbs., 8@9c. Extracted white clover, 7@8c.; dark, 4½@5½c.; Calif. white sage, 5½@6c.; dark, 4½@5c.

BEESWAX.—20@22c.

CLEMONS, CLOON & Co., cor. 4th & Walnut.

MILWAUKEE.

HONEY.—The market is about the same as when last reported—may be quoted a little lower to sell. Choice comb in 1-lb. sections, 12@13c.; 2-lbs., 11@12c. cents; dark not wanted. Extracted, white, in kegs, 6@6½c.; same in tin cans, 6 1-2@7c.; dark in barrels and half-barrels, 5½ 1-2 cts.

BEESWAX.—No demand.

A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO.

HONEY.—The demand for honey remains very good for fine qualities, and they are readily taken for home consumption and shipments to Europe and the East at 4@5½c. job here. Most of the honey is held at 4c. and more, and it seems that sooner or later such prices will be paid, as offerings are rather small. Comb honey is not sought after so far, but with the colder weather more demand will come in, and as supplies are rather small, we anticipate full prices. We now quote 7@10c., as to quality, wholesale.

BEESWAX.—It is dull, but buyers have to pay 22@23c. for choice lots.

SCHACHT & LEMCKE, 122-124 Davis St.

HONEY.—Receipts are light and the market is very quiet. We quote: White extracted, 4@4½c.; amber, 3½c. Comb, 5½@10c. for white.

BEESWAX.—19@22c.

O. B. SMITH & Co., 423 Front Street.

Advertisements.

ONE HUNDRED

Large, Handsome and Extra-Prolific
Select Tested Italian Queens
\$1.50 Each, or Three for \$4.00.

By return mail. Safe arrival guaranteed. Make
Money Orders or Postal Notes payable at Salem,
Mass. Address, **HENRY ALLEY**,
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TO HORSE-OWNERS.

Peck's Ring Bone & Spavin Cure.

A new discovery. Warranted to cure any case
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Address, **D. S. PECK & CO.**,
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BEES and HONEY for SALE.

I OFFER to sell Good Full Colonies of
Hybrid Bees at \$4.00 per Colony; 50 or
more at \$3.50 per Colony. HONEY for
Sale at 12½ cts. Call on or address,

R. S. HECKTELL,
THREE OAKS, MICH.

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SENT one year, and a Tested Italian
Queen, to each subscriber—all for \$1.50.
Sample copies free. Address,

30A12f **HENRY ALLEY**, Wenham, Mass.

Dadant's Foundation Factory, wholesale
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W. Z. HUTCHINSON,

Is rearing Italian Queens for sale again this season,
and can furnish them, by mail, safe arrival guar-
anteed, as follows: Single Queen, \$1.00; 6 Queens
for \$5.00; 12, or more, 75 cts. each. Tested Queens
\$2.00 each. Make Money Orders payable at Flint.
Send for price-list of Bees (full colonies or by the
pound), Given Foundation, Hives, Cases, Feeders,
White Poplar Sections, etc., etc.

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ROGERSVILLE, Genesee Co., MICH.

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1-lb., all-in-one-piece, 40c per lb. for heavy.
Groove, \$4 per 1,000 50c " " light.
Less for lots of 10,000 Send for Samples
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50 COLONIES of
Italians in 11-frame
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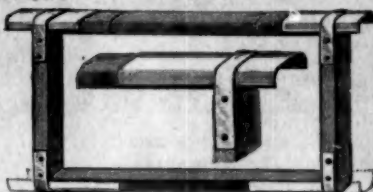
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Can be made to fit any frame if exact width of
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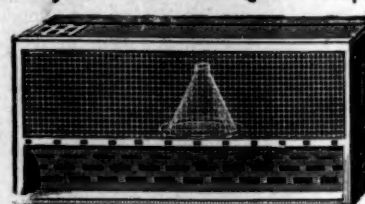
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